

CONSTRUCTION VALUE ENGINEERING CHANGE PROPOSAL  
MISSOURI DEPARTMENT OF TRANSPORTATION

Date 02/24/09

Contract ID 080919-604

Job No. J6I1880

County Franklin

Route 44

Original Bid Cost \$ 1,504,338.95

Contractor APAC-Missouri, Inc.

By David B. Tag, P.E.

Designed By APAC-Missouri, Inc.

Phone 573-449-0886

VECP 09-13

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

The original design on the above referenced project calls for a three staged replacement of the wearing surface of the eastbound bridge on I-44. The bridge is 46 feet wide which makes it possible to construct the wearing surface replacement in two stages, each with a 23-foot work area and 20-foot travel way. This results in a nearly 1/3 reduction in the temporary striping and temporary traffic barrier, and a reduced cost in the wearing surface removal and silica fume overlay.

Job special provision K allows 100 calendar days of work to be performed on eastbound I-44. Reducing the work to two stages reduces the number of days needed for curing concrete. In addition, more efficient work in wearing surface removal and silica fume overlay will allow the work on eastbound I-44 to be completed in 75 calendar days. This will reduce the impact this project has on I-44 traffic. Acceptance of this proposal will modify job special provision K such that liquidated damages will begin after 75 calendar days on eastbound I-44.

Note: No engineering fees were included in the above proposal. We are requesting that if any engineering is required, MoDOT perform the engineering at no cost to APAC-Missouri, Inc or this proposal. By acceptance of this proposal, ~~MoDOT relieves APAC of its DBE liability for the items under-run in this proposal.~~ SEE APAC'S LETTER CONCERNING DBE *[Signature]*

The advantage of reducing the construction staging on the eastbound I-44 is that it will result in the same finished product at a lower cost to the taxpayers.

APAC-Missouri, Inc. does not foresee any disadvantages to the above proposal.

The estimated net savings is \$51,216.30. See attached quantity summary.

2. Estimate of reduction in construction costs.

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

APAC-Missouri, Inc. foresees no additional costs for MoDOT.

DA	
ADA	
Planning	
ROW	
Env Review	
Env Pio	
Fin Mar	
Fin Spec	
Fin Tech	
Bridge	
Civil Rights	
Safety	
Operations	
TE1	
TE2	
TE3	
TE4	

MAR 26 2009

FWA  
MO DIV  
RECEIVED

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

February 24, 2009  
(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

April 1, 2009

(date)

All materials required for construction will be available if this proposal is accepted by the date shown.

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

None

(date and/or dates)

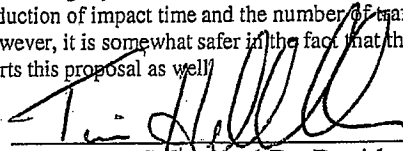
Additional Comments:

Additional Comments:

**\*\* Portion Below This Line To Be Filled Out by MoDOT \*\***

**Comments:**

I support this Value Engineering Concept Proposal (VECP). The advantages include a reduction in overall traffic impacts from 100 calendar days to 75 calendar days as well as a significant cost savings (estimated @ \$51,216.30). Although the overall effective lane width in the Value Engineering Concept Proposal stage 1 is slightly less than the effective lane width in the original design Stage 1 and Stage 2, I believe the overall safety is improved by the overall reduction of impact time and the number of traffic switches. Also, the Stage 1 VECP mirrors the VECP Stage 2 and the original design Stage 3. However, it is somewhat safer in the fact that the E.B. Route 50 On-Ramp merger will be easier to navigate. The Area Management Team supports this proposal as well.



Submitted By Resident Engineer

3/13/09

Date

\* See email submitted 3/13/09 Addressing CONCERNS

**Comments:** AS NOTED ABOVE. ALSO SEE ATAC'S DBE LETTER.

☒ Approval  
Recommended



3-20-09

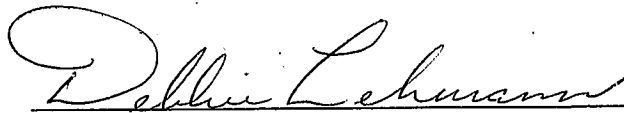
Date

☐ Rejection  
Recommended

District Engineer

**Comments:**

☒ Approval  
Recommended



4-1-09

Date

☐ Rejection  
Recommended

Federal Highway Administration  
Required for FHWA Full Oversight Projects

**Comments:** I recommend acceptance of this VE per the district's recommendations. Denis Glascock. 3/23/2009



4-6-09

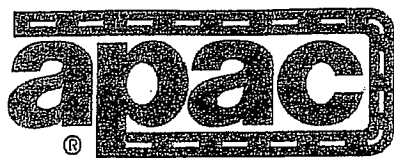
Date

☒ Approval

☐ Rejection

State Construction and Materials Engineer

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer,  
Value Engineering Administrator - MoDOT, P. O. Box 270, Jefferson City, MO 65102



## APAC-Missouri, Inc.

1591-A East Prathersville Road  
Columbia, MO 65202  
P.O. Box 1117  
Columbia, MO 65205  
Tel: 573 449-0886, Fax: 573 449-2980

Friday, March 20, 2009

Mr. Tim Hellebusch, R.E.  
MoDOT St. Clair Project Office  
2215 N. Commercial Ave.  
St. Clair, MO 63077

RE: Route 44, Franklin Co., Job No. J611880, Contract I.D. No. 080919-604

Dear Mr. Hellebusch:

APAC - Missouri is hereby notifying MoDOT that the Value Engineer proposal will adjust our DBE percentage on the above referenced project. With the quantity changes expected within the V.E. proposal we still expect to obtain the DBE goal of 8% which is required by the contract. APAC will make a good faith effort to obtain 8% DBE even with the under run of quantities on several items of work.

Please call with any questions.

Sincerely,  
APAC-Missouri, Inc.

A handwritten signature in black ink, reading "Jeremy Bexten E.I.T.". The signature is fluid and cursive, with the "E.I.T." part being more distinct and written in a slightly different style than the first name.

Jeremy Bexten E.I.T.  
Project Engineer

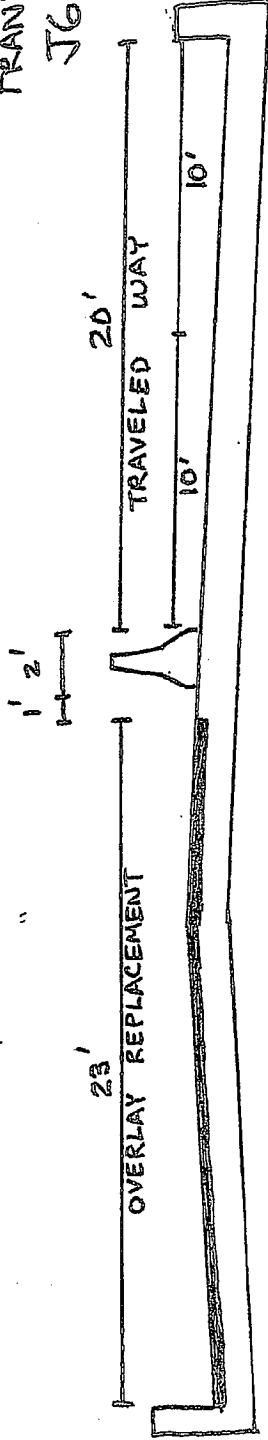
Cc: Job File

**Stay First** Always

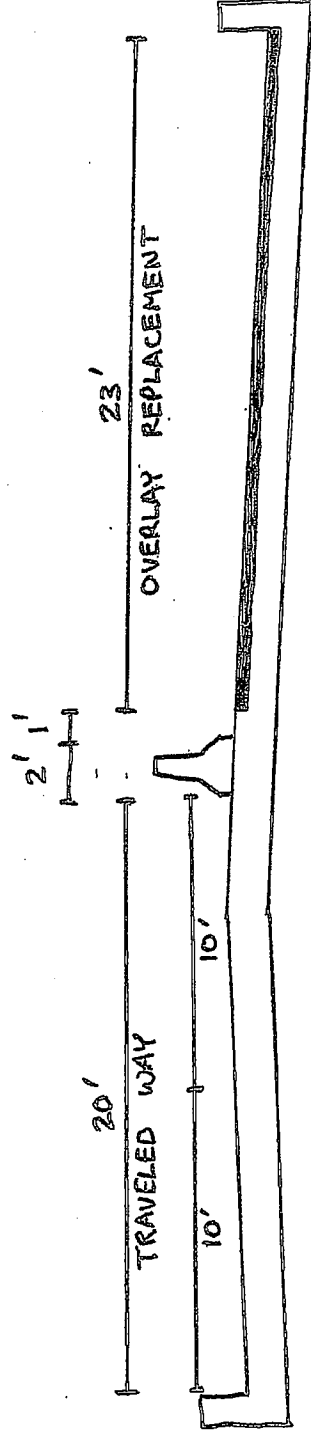
**Bridge L08654 1/3 at time vs 1/2 at a time  
Route 44, Franklin Co., - J611880 - VE Proposal Summary**

Items to be affected									
Item #	Description	Qty. affected	Unit	Cost	Old Cost	New Cost	Saved	What will be saved	
70	Relocate Impact Attenuator	1	EA	\$ 2,500.00			\$ 2,500.00	The stage 2 relocation of attenuator	
150	Type F Barrier	785	LF	\$ 18.50			\$ 14,522.50	Stage 2 Extra Barrier not needed	
160	Relocate Type F Barrier	785	LF	\$ 5.00			\$ 3,925.00	Stage 2 Reloc. Barrier not needed	
180	Temp. 4" Marking Tape White	3200	LF	\$ 1.00			\$ 3,200.00	Stage 2 Striping not needed	
190	Temp. 4" Marking Tape Yellow	4300	LF	\$ 1.00			\$ 4,300.00	Stage 2 Striping not needed	
270	Removal of Temp. Tape	6600	LF	\$ 0.25			\$ 1,650.00	Stage 2 Striping not needed	
690	Remove Conc. Wearing Surf	26258	SF		\$ 0.65	\$ 0.55	\$ 2,625.80	More efficient milling of bridge	
710	Silica Fume	2943	SY		\$ 48.00	\$ 44.00	\$ 11,772.00	More efficient silica fume overlay	
720	Class B-1 Concrete	31.2	CY		\$ 950.00	\$ 820.00	\$ 4,056.00	More efficient concrete at end bents	
780	Mechanical Bar Splices	41	EA	\$ 65.00			\$ 2,665.00	Saving half of mechanical bar splices	
					<b>Total</b>		<b>\$ 51,216.30</b>		

ROUTE I-44  
FRANKLIN CO.  
J6I1880



STAGE 1



STAGE 2

APAC - MISSOURI, INC.  
D.B. Z., P.E. 1/12/09

VE CONCEPT  
STAGING MODIFICATION

EB I-44  
Bridge L08654

Tim A  
Hellebusch/D6/MODOT  
03/13/2009 08:58 AM

To Matthew J Budd/D6/MODOT@MODOT, Judy A  
Wagner/D6/MODOT@MODOT, Timothy J  
Schroeder/D6/MODOT@MODOT, Richard R  
cc Jeremy.Bexten@apac.com, Wendy L  
Brooks/D6/MODOT@MODOT, Patricia A  
Miller/D6/MODOT@MODOT, Lise G  
bcc  
Subject J6I1880, Route 44, Franklin - Summation of Conceptual  
Value Engineering Comments

Everyone - We have compiled all the comments from the recent Conceptual Value Engineering Proposal that was submitted by APAC for Job J6I1880, Route I-44, Franklin. We have also included the solutions. The "official" Conceptual Value Engineering Submittal has been forwarded for everyone's signature. Once we receive the signed copy, we will be forwarding 2 change orders to address the 75 Day adjusted milestone and all quantity adjustments. If anyone has any further comments, please don't hesitate to email or call. Thanks again for your input.

Tim

Matt Budd

Concerns

- Addressing truck traffic through the work zone, (have them use left lane only).
- Good faith effort to replace the DBE.

Solution

- Will utilize signing and striping to prohibit passing and to keep trucks in left lane
- Reviewed current DBE % - with proposed underruns, APAC will still meet 8%

goal

Judy Wagner

Concerns

- Will we be able to maintain 10' lanes
- Who will do the design (sign/seal)

Solution

- Yes we will maintain 10' lanes
- James Kelley and Tim Schroeder will do the design and Sealing

Rick Schneider

Concern

- Is the existing outside shoulder capable of handling the staged traffic

Solution

- Met with Phil Ruffus (MoDOT Geology) at the site. Reviewed the core

information that was taken in 2006. Phil was confident that the existing shoulders would perform adequately if we kept the heavy vehicles (trucks) off the shoulder and we would limit the exposure to 1/2 of the 75 Day completion time.

Debbie Lehmann

Concern

- Same question as Rick Schneider, however was curious if costs have been

considered

- Has anyone checked to see if the existing structure is capable of handling traffic

on the shoulder

Solution

- Same solution as mentioned previously with the note on the Conceptual VE and Change Order that if any costs are incurred as a result of damage to the shoulder, those costs

will be included in the VE

- Consulted with Ray Jansen (MoDOT Bridge). Ray has no concerns related to traffic utilizing the outside shoulder.

Tim Hellebusch, P.E.  
Resident Engineer  
St. Clair Project Office

# VALUE ENGINEERING CHECK SHEET

## TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☒ TCP/MOT
- ☐ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. \_\_\_\_\_

## SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

The staging of the project is simplified, reducing the need for temporary striping due to the change in traffic control, and reducing the time necessary to complete the project.

## SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.